Designing Learning-oriented Assessment for Flexible Learning and Teaching

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Introduction

Before examining the design of learning-oriented assessment for flexible learning and teaching, this paper will begin by describing the context of learning for distance learners. Distance learners are typified by their need to often combine the demands of home, work, family and study, and they therefore desire flexibility in terms of study options. Secondly, it will examine the landscape of distance learning in terms of the perspectives that should be valued in curriculum and flexible learning. Thirdly, the paper will examine the importance of assessment. This section will discuss how educators have become focused on measurement and neglected assessment as learning in the fabric of the student experience. Fourthly, I will discuss putting the learning back into assessment through learning-oriented assessment. Fifthly, I will examine the design of learning-oriented assessment tasks through two examples. Sixthly, I will focus on challenges of assessing using learning-oriented assessment that need to be considered within the curriculum and the teaching context.

Landscape of distance learning

Higher education is changing to accommodate learners who do not physically visit the traditional university campus. As learners embrace life-wide and life-long learning, many are embracing flexible learning options. Learning in the 21st century, increasingly, does not only occur in the formal university setting. There is a ubiquity of learning in a wide range of contexts including work, home and within the community. The blurring of face-to-face learning and teaching and online learning is a significant shift for both students and staff in universities and has implications for distance learners who desire flexible learning, teaching and assessment options without losing the fidelity of face-to-face interactions. Flexible learning provides opportunities to improve the student learning experience through flexibility in time, pace, place (physical, virtual, on-campus, off-campus), mode of study (print-based, face-to-face, blended, online), teaching approach (collaborative, independent), forms of assessment and staffing. It may utilize a wide range of media, environments, learning spaces and technologies for learning and teaching. Blended and flexible learning is a design approach that examines the relationships between flexible learning opportunities, in order to optimize student engagement and equivalence in learning outcomes regardless of mode of study (Keppell, 2011, p. 2).

Curricular landscape for distance learners

As the higher education context is changing, the curriculum needs to adapt and transform to account for flexible learning. Beyond the content of the curriculum, a contemporary curriculum needs to be designed to account for a variety of perspectives so that distance learners can interact and engage as successful learners. Designing curriculum through multiple perspectives ensures that the different circumstances of the distance learner are considered in a thoughtful and considered way. These perspectives include: *learning spaces, pedagogy, multi-literacies, ICT, interactions and assessment* (Flexible Learning Institute, 2012). An understanding of the increasingly diverse learning spaces needs to be considered by universities, curricula, teachers and learners. The distance learner student

experience may encompass on-campus, off-campus learning in both face-to-face and virtual learning environments. Distance learners may participate in fully online courses or a blend of both face-to-face and online courses. These distributed learning spaces could involve a complex web of on-campus experiences, connecting to virtual environments from a variety of locations such as home, a local cafe, on the train or participating in professional practice hundreds of kilometers from the physical campus (Keppell, 2011).

Designing curricula from a pedagogical perspective is directly relevant to the student experience as well as having numerous implications for assessment. The strategies adopted directly influence the types of learning experiences and the educational philosophy of the teacher as well as the educational theories emphasized by the teacher influence learning approaches. For example, if a curriculum adopts authentic learning as a guiding perspective it will design learning and teaching around these principles (Herrington, Reeves, Oliver, 2010). Citizenship increasingly necessitates the use of a diverse range of new technologies and modes and mediums of communication to be able to effectively learn and operate within the context of the 21st century and beyond. Thus, being "literate is vital for learning and working, possibly more so in the digital age than in the industrial age, given society's reliance on digital technologies" (Pullen, Gitsaki & Baguley 2010 p. xiii). In designing a curriculum from a multi-literacies perspective, a curriculum needs to embed both teacher and student digital interactions to enable them to learn effectively in contemporary society. The choice of ICT tools that will assist distance learning requires curriculum designers and teachers to utilize their knowledge of the affordances of different technologies and their potential in meeting learning outcomes. The choice of tools is dependent on the purpose and the functionality of the tools. Institutional tools such as learning management systems and personal learning tools such as e-portfolios offer potential for increasing flexibility for students and providing spaces for assessment.

Course and subject interactions should provide a range of engaging options and where appropriate should include information access (course and subject expectations), interactive learning (learner-to-content interactions), networked learning (learner-to-learner, learner-to-teacher interactions) and student generated content (learners as designers, assessment as learning). Assessment is the final perspective and it must align with learning spaces, pedagogy, multi-literacies, ICT and interactions if effective and learning-oriented assessment is to be developed. A student-centred approach provides engaging, motivating and intellectually stimulating learning experiences focused on the individual and social needs of the learners. Active participation in learning activities should be fostered through emphasizing the interactive and social dimensions of learning both in physical and virtual environments. Students also need opportunities to become independent learners and to take responsibility for their own learning. Effective flexible learning is based on thoughtful choices in pedagogies, learning spaces, interactions, ICTs and literacies according to their affordances, blending them in a way that is contextually appropriate to meet the required learning outcomes. Assessment needs to be integrated into curricular and subject interactions to be effective. Assessment for distance learning needs to acknowledge the unique characteristics of the e-learning environment and optimize these opportunities to design learning-oriented assessment.

Assessment

Boud and Associates (2010), in developing 'Assessment 2020', articulated seven propositions to reform higher education. The three principles that underpin the propositions comprise: assessment is a central feature of teaching and the curriculum; assessment is the making of judgments about how students' work meets appropriate standards; assessment plays a key role in both fostering learning and the certification of students. Assessment has been most effective when:

- assessment is used to engage students in learning that is productive
- feedback is used to actively improve student learning
- students and teachers become responsible partners in learning and assessment
- students are inducted into the assessment practices and cultures of higher education
- assessment for learning is placed at the centre of subject and program design
- assessment for learning is a focus for staff and institutional development

- assessment provides inclusive and trustworthy representation of student achievement (Boud & Associates, 2010).

The overarching significance and importance of technology-enhanced assessment has been highlighted in the review of the literature on online formative assessment conducted by Gikandi, Morrow and Davis (2011). This comprehensive review "provided evidence that online formative assessment has the potential to engage both teacher and learner in meaningful educational experiences" (p. 2347). The review identified the important dimensions of online formative assessment including: "variety of ongoing and authentic assessment activities, appropriate learner autonomy, effective formative feedback and teachers role in fostering shared purpose and understanding of learning goals, content and outcomes" (p. 2347). It also reinforces the importance of embedding assessment in the learning dynamic and of assessing both process and product for those teaching online. JISC (2009) described the potential benefits of technology within the area of assessment. The JISC report encourages assessment designers to "reflect on how technology-enabled practice, grounded in principles of good assessment and feedback, might enhance the quality of assessment and feedback" (p. 5). Technology-enhanced assessment provides flexible approaches for academics to provide feedback to students

Learning-oriented assessment

The major focus of this paper is about putting learning at the centre of assessment and reconfiguring assessment design so that the learning function is emphasized. Learning-oriented assessment has three core aspects: *Assessment tasks as learning tasks, Student involvement in the assessment processes and Forward-looking feedback* (Carless, Joughin, Liu, & Associates, 2006).

Assessment tasks as learning tasks

Because all assessment leads to some form of learning it is important to thoughtfully design assessment in order to encourage the types of learning outcomes that we value and desire (Carless, 2007; Keppell & Carless, 2006; Boud, 1995). In addition, because assessment often determines student effort it is essential that we design assessment for distance learners that is engaging, authentic and relevant. By doing so, students' efforts are focused on learning while at the same time fulfilling the measurement requirement of the subject or curriculum. Too often assessment focuses on assessment *OF* learning as opposed to assessment *AS* learning which is a central characteristic of learning-oriented assessment.

Student involvement in the assessment processes

There are a number of important reasons why students need to be actively involved in the assessment process. Firstly they begin to learn about assessment and thus begin to understand its importance in their own learning. Secondly, they begin to determine the quality of their own work through self-evaluation, reflection and self-regulation. Sadler (1989) also suggested that by understanding quality students are then able to monitor their own progress in relation to this quality standard. Thirdly, in addition an assessment task should require sustained effort over a period of time in order to promote deep as opposed to superficial learning.

Forward-looking feedback

Feedback as feed-forward suggests that students receive feedback that can be acted on to improve learning. This is one of the most important concepts in learning, being able to act on feedback to improve subsequent performance. Obtaining feedback needs to occur at an appropriate time so that it can be acted on. "In particular, we are anxious to minimize a common phenomenon in higher education, occurring when students receive most of their feedback after a subject is completed and when there is minimal possibility of it being acted upon" (Keppell & Carless, 2006, p. 182).

Designing learning-oriented assessment

The following section examines two examples of learning design for learning-oriented assessment. The first example outlines a subject focused on designing learning resources that utilized peer learning and project-based learning.

Goal	The subject was designed to allow Hong Kong students to bring together, in a coherent manner, the processes of analysis, design, production and evaluation of learning resources.
Assessment tasks as learning tasks	Group Project 60% The project provided an opportunity for the students to apply principles and skills learned in the subject to create a learning resource. The components of the project included: • Needs analysis – outlined the major aspects of the project • Concept map – provided a visual map of project • At least 10 original photographs – that complemented the design of project • One digital learning resource – digital story that articulated the roles of team members in the project through audio and visuals. • 15 minute presentation about the project by the entire group • Written report of no more than 800 words that discussed analysis, design, production and evaluation of the project and included references to the subject readings. Characteristics of the assessment task: • Alignment of learning outcomes, content and assessment. • Distribution of student time and effort throughout semester. • Degree of student choice in assessment task. • Relationship between assessment task and real-world task. • Cooperative rather than competitive task.
Student involvement in the assessment processes	• Project-based learning (Howard, 2002) emphasized the student's role in the assessment process • Students were regarded as active, engaged and critical assessors • Students monitored what they were learning - made adjustments, adaptations and major adjustments to their own learning • There was an awareness of the goals of learning and what constituted quality achievement. The project was graded using a rubric that was also used by the lecturer as a quality framework throughout the subject. • Engagement in activities encouraged reflection, peer feedback and self-evaluation. • Self assessment was embedded in the task.
Forward-looking feedback	• Forward-looking feedback was provided by the lecturer in relation to the draft needs assessment, draft concept map and presentation. • Communication tools were used to enhance peer learning by providing easy access to the opinions of other students. Peers provided feedback on other student project presentations. • The lecturer frequently provided timely and forward-looking verbal feedback enabling students to act on and improve their learning.

The second example examines the use of ePortfolios in assessment. It focuses on an assessment task embedded into a four-year degree program.

Goal	This initiative focused on embedding the use of an ePortfolio into the Bachelor of Education (Early Childhood & Primary) at Charles Sturt University. It was intended that an ePortfolio would be iteratively designed throughout the four years of study (Keppell & Munday, 2010).
Assessment tasks as learning tasks	Within the first year of study the students were given reflective tasks about the skills and attributes they were bringing to their University study. This reflective task included asking students to provide examples of their skills and attributes in the following areas: • Early childhood knowledge • Communication skills • Analytical, critical and reflective skills • Addressing unfamiliar problems • Planning my own work • Team work • National and international perspective • Values-driven practice Characteristics of the assessment task: • Alignment of learning outcomes, content and assessment. • Distribution of student time and effort throughout degree program. • Degree of student choice in assessment task. • Relationship between assessment task and real-world task. • Portfolio creation enabled the student to produce the portfolio for different purposes including personal and professional reflection; communication with lecturers or peers; displaying of achieved skills or attributes assessment, sharing or showcasing. • Students were asked to reflect on the learning they had been engaged in during classroom activities, professional experience, and assessment tasks over the degree program.
Student involvement in the assessment processes	• The purpose of this task was to broaden students learning opportunities, provide students with more personal control over their own learning and provide them with the opportunity to determine creative methods of articulating their own learning. • Students needed to consider their collected artefacts and other supporting documentation as possible answers to criteria to provide evidence of learning or accomplishment. • Students needed to assemble evidence in a way that demonstrated their reflection. • Students needed to present the materials in an aesthetically pleasing way for the audience (Keppell & Munday, 2010). Characteristics of student involvement: • Self-directed learning emphasized the student choice and role in the assessment process • Students were regarded as active, engaged and critical assessors • Students monitored what they were learning - made adjustments, adaptations and major adjustments to their own learning • There was an awareness of the goals of learning and what constituted quality achievement. • Engagement in activities encouraged reflection and self-evaluation. • Self-assessment was embedded in the task.

Forward-looking feedback	• Forward-looking feedback was provided by the lecturer in relation to the design of the ePortfolio. • Peers provided feedback on ePortfolios. • The lecturer provided forward-looking verbal feedback enabling students to act on and improve their learning. • Throughout the degree program a variety of lecturers would provide feedback to the student in relation to their ePortfolio.

Challenges

Learning design
As can be seen by the assessment tasks described above, the design of authentic, real-world assessment tasks requires a knowledge of learning outcomes that can be embedded into an assessment task. Teachers need to have a clear understanding of what they feel are the most important learning outcomes that students must achieve. Authentic, real-world assessment tasks would focus on project-based learning, problem-based learning and activities that maximize the synergies between theory, professional practice and community activities, and engages students in developing solutions to real world problems and issues. Authentic learning recognizes, values and harnesses learning that takes place both within and outside of formal learning activities (Flexible Learning Institute, 2012). Learning design may be challenging for some teachers who feel they do not have the knowledge and skills to creatively design learning-oriented assessment tasks.

Multi-literacies
To succeed in designing learning-oriented assessment for e-learning environments both the teacher and students need to have a sophisticated knowledge of multi-literacies. Multi-literacies are defined as highly developed and current knowledge and skills in a wide range of information and communication technologies, allowing the user to locate and evaluate, organize, analyze and assimilate information more effectively. Multiliteracies include: formal literacy, disciplinary literacy, socio-cultural literacy and information literacy. Information literacy is a broad intellectual framework which is essential to lifelong learning and which incorporates fluency in ICT (information and communication technology). ICT access and skill development (technoliteracy) is an important part of the distance learning experience and is embedded within subject content, design, teaching and assessment. High levels of multiliteracies, including an understanding of appropriate netiquette, also enables a user to communicate more effectively in online environments.

Accountability and trust
Carless (2009 a&b) suggested that accountability is pervasive in higher education and is often reflected in assessment practices in higher education institutions. Accountability is focused on standards and the tensions that exist when standards may drift. There may also be an attitude that standards cannot be compromised, which may constrain the forms of assessment that are utilized in the curriculum by teachers. For example traditional assessment may lean toward assessment OF learning which is usually summative, certifies student learning, usually consists of tests or exams, provides feedback in terms of grades and marks and provides comparisons between students (Earl, 2003). This may result in superficial assessment involving memorization and may not allow students to act on feedback. Carless (2009a) also suggested that a concern about plagiarism may result in a lack of trust of students completing assignments or projects, which may mean that teachers revert back to exams. Due to this accountability in some higher education institutions, teachers may also be reluctant to be too adventurous with learning-oriented assessment as it may have implications for their professional status and career progression.

Group projects
As suggested by Carless (2009) the tension related to grading group projects focuses on trusting the student to contribute in an equitable way to the group project. Keppell, Au, Ma & Chan (2006) suggest that “it is essential that we do not use peer assessment inappropriately, as it can also inhibit

learning and send inappropriate signals to students about the nature of peer learning within groups" (p. 462). The authors argue "we are sending students inappropriate messages when we ask them to cooperate in a group to create a group project and then turn around and ask them to formally assess the contribution of each individual member within the group. A blended approach to assessment of both group and individual items should appease both students and staff who are concerned about 'freeloaders'. Peer learning and peer assessment are about students providing feedback to each other for the benefit of the collective effort" (p. 462).

Conclusion

This paper has described the context of learning for distance learners and examined the landscape of distance learning in terms of the perspectives that should be valued in curriculum and flexible learning. This paper has suggested that learning-oriented assessment attempts to reconceptualize assessment by putting the learning back into assessment. Two examples of learning oriented assessment focused on the design of a group project and the embedding of ePortfolios into a degree program. Learning-oriented assessment is not without its challenges as teachers need to have knowledge and skills in learning design and both teachers and students need multi-literacies to interact effectively in the digital learning environment. In addition accountability, trust and assessment of group projects are pervasive issues in contemporary higher education. However the advantages of learning-oriented assessment far outweigh the challenges of its implementation.

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